Publisher: MacMillan/McGraw-Hill

Text/Instructional Material Title: Science, 2004

Science		Rating	
Standard	Adequate	Limited	No Evidence
5.1	√		
5.2	✓		
5.3	✓		
5.4	✓		
5.5	√		
5.6		✓	
5.7		✓	
Additional Criteria			
5-AC.1	✓		
5-AC.2	✓		
5-AC.3	✓	·	
5-AC.4		√	
5-AC.5	√		

The Virginia Department of Education recommends to the Board of Education:

YES	\checkmark	NO

Publisher: MacMillan/McGraw-Hill Text/Instructional Material Title: Science, 2004

Science Standard	Rating Scale Please indicate the	ne rating for eac	h by placing a
	check mark (\checkmark)		
	Adequate	Limited	No Evidence
5.1 The student will plan and conduct investigations in which			
 a) rocks, minerals, and organisms are identified using a classification key; 	✓		
b) estimations of length, mass, and volume are made;	✓		
c) appropriate instruments are selected and used for making quantitative observations of length, mass, volume, and elapsed	√		
d) accurate measurements are made using basic tools (thermometer, meter stick, balance, graduated cylinder);	√		
e) data are collected, recorded, and reported using the appropriate graphical representation (graphs, charts, diagrams);	√		
 f) predictions are made using patterns, and simple graphical data are extrapolated; 	√		
g) manipulated and responding variables are identified; and	✓		
h) an understanding of the nature of science is developed and reinforced.	✓		
Overall Rating for Standard	✓		

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Science Standard	Rating Scale		
	Please indicate the rating for each by placing		
	check mark (✓)	in the appropriate	e cell.
	Adequate	Limited	No Evidence
5.2 The student will investigate and understand how sound is transmitted and is used	_		
as a means of communication. Key concepts include			
a) frequency, waves, wavelength, vibration;	✓		
 b) the ability of different media (solids, liquids, and gases) to transmit sound; and 	√		
c) uses and applications (voice, sonar, animal sounds, and musical instruments).		✓	
Overall Rating for Standard	✓		

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Science Standard	Rating Scale		
	Please indicate the rating for each by place		h by placing a
	check mark (✓) i	in the appropriat	e cell.
	Adequate	Limited	No Evidence
5.3 The student will investigate and understand basic characteristics of visible light			
and how it behaves. Key concepts include			
a) the visible spectrum and light waves;	✓		
b) refraction of light through water and prisms;	√		
c) reflection of light from reflective surfaces (mirrors);	✓		
d) opaque, transparent, and translucent; and	✓		
e) historical contributions in understanding light.	✓		
Overall Rating for Standard	✓		

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Science Standard	Rating Scale Please indicate the rating for each by placing check mark (✓) in the appropriate cell. Adequate Limited No Evid		n by placing a e cell.
			No Evidence
5.4 The student will investigate and understand that matter is anything that has mass;			
takes up space; and occurs as a solid, liquid, or gas. Key concepts include			
a) atoms, elements, molecules, and compounds;	✓		
b) mixtures including solutions; and	✓		
c) effect of heat on the states of matter.	√		
Overall Rating for Standard	√		

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Science Standard	Rating Scale Please indicate the rating for each by placing check mark (✓) in the appropriate cell.		h by placing a te cell.
	Adequate	Limited	No Evidence
5.5 The student will investigate and understand that organisms are made of cells and have distinguishing characteristics. Key concepts include			
a) Basic cell structures and functions;	✓		
b) kingdoms of living things;		✓	
c) vascular and nonvascular plants; and	✓		
d) vertebrates and invertebrates.	√		
Overall Rating for Standard	√		

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Science Standard	Rating Scale Please indicate the rating for each by placing check mark (✓) in the appropriate cell.		h by placing a
	Adequate Limited No E		
5.6 The student will investigate and understand characteristics of the ocean			
environment. Key concepts include			
a) geological characteristics (continental shelf, slope, rise);	✓		
b) physical characteristics (depth, salinity, major currents); and		✓	
c) biological characteristics (ecosystems).		√	
Overall Rating for Standard		✓	

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Science Standard	Rating Scale Please indicate the rating for each by placing a check mark (✓) in the appropriate cell.		
	Adequate	Limited	No Evidence
5.7 The student will investigate and understand how the Earth's surface is constantly			
changing. Key concepts include			
a) the rock cycle including the identification of rock types;	✓		
b) Earth history and fossil evidence;		✓	
c) the basic structure of the Earth's interior;		✓	
d) plate tectonics (earthquakes and volcanoes);		✓	
e) weathering and erosion; and	√		
f) human impact.	√		
Overall Rating for Standard		✓	

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Additional Criteria	Rating Scale Please indicate the rating for each by placing check mark (✓) in the appropriate cell.		h by placing a te cell.
	Adequate	Limited	No Evidence
1. Safe use of materials and equipment is encouraged.	/		
Overall Rating for Additional Criteria 1	√		
 Materials emphasize the use of effective instructional practices and learning theories. Students are guided through different approaches such as the learning cycle. Students are provided the opportunity to conduct scientific inquiry appropriate for their age, grade, and maturity. Concepts are introduced through concrete experiences. Students are required to use manipulative materials during investigations and activities. Multiple opportunities are provided for students to apply concepts. Learning activities offer opportunities for students to revise their prior knowledge and create new knowledge. Students are encouraged to pose questions and to identify problems, as well as propose multiple solutions and design and conduct tests of inference. Students collect and interpret data through a variety of technologies and draw conclusions based on that data. 			
Overall Rating for Additional Criteria 2	√		

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Additional Criteria	Rating Scale Please indicate the rating for each by placing check mark (✓) in the appropriate cell.		
	Adequate	Limited	No Evidence
 3. Materials present content in an accurate, unbiased manner, and are based on sound science. • Materials do not contain content errors (omissions of current content, out-of-date content, overgeneralizations, etc.).* • Materials do not contain production errors (misspelled words, word omissions, incorrect answers).* • Diverse groups (racial, ethnic, cultural, linguistic), males and females, people with disabilities, and people of all ages are represented appropriately. • The materials are free of non-scientific explanation. 	~		
Overall Rating for Additional Criteria 3	✓		

^{*}Please note that the Department of Education does not certify that all inaccuracies and/or grammatical errors have been detected in this instructional item and reported in this correlation profile.

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Additional Criteria	Rating Scale Please indicate the rating for each by placing check mark (\checkmark) in the appropriate cell.		e cell.
	Adequate	Limited	No Evidence
 4. Materials promote student assessment as an integral part of the instructional process. Assessment suggestions and scoring criteria for student performances on work such as lab practicals or tasks, concept maps, research projects, observation checklists, etc. are provided. Assessment items include multiple-choice, short answer; essay and openended questions with charts, graphs, and diagrams imbedded within the items. Options include techniques for assessing students' prior knowledge. Assessment items reflect the rigor and the intent of the standards. For example, they require students to use higher order thinking skills to apply, analyze, synthesize, evaluate, and make judgments or recommendations. 		~	
Overall Rating for Additional Criteria 4		√	

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Additional Criteria	Rating Scale Please indicate the rating for each by placing a check mark (✓) in the appropriate cell.		
	Adequate	Limited	No Evidence
 5. Materials are presented in an organized, logical manner and are appropriate for the age, grade, and maturity of the students. Materials are organized appropriately within and among units of study. Format design includes titles, subheadings, and appropriate cross-referencing for ease of use. Writing style, length of sentences, and vocabulary are appropriate. Graphics and illustrations are appropriate. Level of abstraction is appropriate, and real life examples, including careers are provided. Sufficient applications are provided to promote depth of understanding. 			
Overall Rating for Additional Criteria 5	√		